

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JUAN A. GARCIA-MALLOL

Appeal No. 1997-4385
Application No. 08/288,864

ON BRIEF¹

Before ABRAMS, STAAB, and GONZALES, Administrative Patent Judges

GONZALES, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the examiner's final rejection of claims 19 through 29. These claims constitute all of the claims pending in this application.

¹ The oral hearing scheduled for July 13, 2000, was waived in a paper filed May 22, 2000 (Paper No. 15).

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We AFFIRM-IN-PART.

The subject matter on appeal is disclosed as a fluidized bed reactor 10 having a furnace section 22 and a horizontal cyclone separator 28 defining a generally cylindrical vortex chamber 30 for separating solid particles from a mixture of gases and particles. In operation, a mixture of entrained particles and gases rises upwardly within the furnace section 22 and passes through an inlet 32 into the vortex chamber 30 where the solid particles strike the inner surfaces of the vortex chamber 30 and are separated from the gases. The gases exit the chamber 30 via an outlet 36 while the separated particles fall downwardly by gravity into a funnel 35 and are returned to the furnace section via an outlet trough 34. A solids deflector 38 extends into the vortex chamber from an end wall 18 of the chamber for preventing separated particles from bouncing off the end wall and becoming re-entrained in the separated gases. A solid block 33 is disposed adjacent the inlet opening 32 for defining an inlet passage for directing the mixture of entrained particles and gases into the vortex chamber 30 in a tangential direction thereto.

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Claims 19 and 25 are representative and are reproduced in an appendix to the brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Evans	2,888,096	May 26,
1959		
Suzuki et al. (Suzuki)	4,285,142	Aug. 25,
1981 Dewitz et al. (Dewitz)	4,731,228	
Mar. 15, 1988 Kalen et al. (Kalen)	5,207,805	
May 04, 1993		

The following rejections are before us for review:

(I) claims 19 through 24 stand rejected under 35 U.S.C.

§ 102(b) as being anticipated by Dewitz; and

(II) claim 25 through 29 stands rejected under 35 U.S.C.

§ 102(b) as being anticipated by Evans or Suzuki or Kalen.

The full text of the examiner's rejections and responses to the arguments presented by the appellant appears in the answer

(Paper No. 13), while the complete statement of the appellant's arguments can be found in the brief (Paper No. 12).

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OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we have made the determinations which follow.

Rejection (I)

We sustain the rejection of claims 19 through 24 under 35 U.S.C. § 102(b) as being anticipated by Dewitz.

Initially we note that anticipation by a prior art reference does not require either the inventive concept of the claimed subject matter or the recognition of inherent properties that may be possessed by the prior art reference. See Verdegaal Bros. Inc. v. Union Oil Co., 814 F.2d 628, 633, 2 USPQ2d 1051, 1054 (Fed. Cir.), cert. denied, 484 U.S. 827 (1987). A prior art reference anticipates the subject of a claim when the reference discloses every feature of the claimed invention, either explicitly or inherently (see Hazani

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v. Int'l Trade Comm'n, 126 F.3d 1473, 1477, 44 USPQ2d 1358, 1361 (Fed. Cir. 1997) and RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984)); however, the law of anticipation does not require that the reference teach what the appellants are claiming, but only that the claims on appeal "read on" something disclosed in the reference (see Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984)).

Claim 19 on appeal is written in Jepson format. Ex parte Jepson, 1917 Dec. Comm'r Pats. 62, 243 Off. Gaz. 525 (1917). When a claim is written in Jepson format, the subject matter recited in its preamble (leading up to the claim language "the improvement") is impliedly admitted to be old in the art. In re Ehrreich, 590 F.2d 902, 909, 200 USPQ 504, 510 (CCPA 1979). The appellant's "improvement" comprises:

a solids deflector extending into the chamber from
the other end wall opposite the one end wall
[containing the outlet opening] for preventing the
separated particles from bouncing off the other end
wall and becoming re-entrained in the separated

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gases.

Before addressing the examiner's rejection based upon prior art, it is an essential prerequisite that the claimed subject matter be fully understood. Analysis of whether a claim is patentable over the prior art under 35 U.S.C. §§ 102 and 103 begins with a determination of the scope of the claim. The properly interpreted claim must then be compared with the prior art. Claim interpretation must begin with the language of the claim itself. See Smithkline Diagnostics, Inc. v. Helena Laboratories Corp., 859 F.2d 878, 882, 8 USPQ2d 1468, 1472 (Fed. Cir. 1988). Accordingly, we will initially direct our attention

to the appellant's claim 19 to derive an understanding of the scope and content thereof.

Before turning to the proper construction of the claims, it is important to review some basic principles of claim construction. First, and most important, the language of the claim defines the scope of the protected invention. Yale Lock Mfg. Co. v. Greenleaf, 117 U.S. 554, 559 (1886) ("The scope of

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letters patent must be limited to the invention covered by the claim, and while the claim may be illustrated it cannot be enlarged by language used in other parts of the specification."); Autogiro Co. of Am. v. United States, 384 F.2d 391, 396, 155 USPQ 697, 701 (Ct. Cl. 1967) ("Courts can neither broaden nor narrow the claims to give the patentee something different than what he has set forth [in the claim]."). See also Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U.S. 405, 419 (1908); Cimiotti Unhairing Co. v. American Fur Ref. Co., 198 U.S. 399, 410 (1905). Accordingly, "resort must be had in the first instance to the words of the claim" and words "will be given their ordinary and accustomed meaning, unless it appears that the inventor used them

differently." Envirotech Corp. v. Al George, Inc., 730 F.2d 753, 759, 221 USPQ 473, 477 (Fed. Cir. 1984). Second, it is equally "fundamental that claims are to be construed in the light of the specification and both are to be read with a view

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to ascertaining the invention." United States v. Adams, 383 U.S. 39, 49, 148 USPQ 479, 482 (1966).

Furthermore, the general claim construction principle that limitations found only in the specification of a patent or patent application should not be imported or read into a claim must be followed. See In re Priest, 582 F.2d 33, 37, 199 USPQ 11, 15 (CCPA 1978). One must be careful not to confuse impermissible imputing of limitations from the specification into a claim with the proper reference to the specification to determine the meaning of a particular word or phrase recited in a claim. See E.I. Du Pont de Nemours & Co. v. Phillips Petroleum Co., 849 F.2d 1430, 1433, 7 USPQ2d 1129, 1131 (Fed. Cir.), cert. denied, 488 U.S. 986 (1988). What we are dealing with in this case is the construction of the limitations recited in the appealed claims.

With the above in mind, we interpret the word "preventing" in the appellant's claim 19 to mean "impeding."

This

interpretation is consistent with the ordinary meaning of the word (see Webster's II New Riverside University Dictionary 933 (1984) ("prevent: to keep (someone) from doing something; impede"); id. at 613 ("impede: to obstruct or delay the progress: hinder")) and with the appellant's use of the word in the specification. There is no disclosure in the appellant's specification that the solids deflector 38 totally covers or precludes all particles from bouncing off the end wall 18. In fact, the provision of opening or slot 38a in the lower portion of the deflector for directing separated solids into funnel 35 (see specification, p. 7 and Figures 1 and 3) indicates to us that entrained particles may contact that portion of wall 18 not covered by the deflector 38 and settle within the interior of the deflector.

The examiner determined (answer, p. 4) that the solids deflector as defined in claim 19 reads on the vortex stabilizer 21 of Dewitz. We note that Dewitz specifically teaches that a

vortex stabilizer improves the separation efficiency of the solid and fluid phases (see col. 10, ll. 47-52), which is one of the objects of the appellant's invention.

Without question, the vortex stabilizer 21 disclosed by Dewitz will prevent particles from bouncing off the wall 9 at least at that portion of wall 9 which is occupied or covered by the vortex stabilizer 21, just as the appellant's deflector will prevent particles from bouncing off the wall 18 at that portion of the wall covered by the deflector. Thus, we conclude that the examiner has established a prima facie case of anticipation.²

The appellant argues (brief, pp. 3-5) that Dewitz teaches that the purpose of the vortex stabilizer 21 is ". . . to guarantee formation and existence of a helical flow of fluid (vapor) material" (see Dewitz, col. 7, ll. 14-16) and that the vortex stabilizer 21 of Dewitz is not capable of preventing the separated particles from bouncing off the wall 9. According to the appellant, because the outer diameter of the

² It is well settled that the burden of establishing a prima facie case of anticipation resides with the Patent and Trademark Office (PTO). See In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984).

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vortex stabilizer 21 is significantly less than that of the wall 9, the element 21 of Dewitz will permit solids to bounce off wall 9.

While there is no explicit statement in Dewitz that the disclosed vortex stabilizer 21 prevents separated particles from bouncing off the wall 9, it is self-evident that separated particles are prevented from contacting that portion of wall 9 covered by the vortex stabilizer 21. That is all the claim requires (see our interpretation of the word "preventing" above).

After the PTO establishes a prima facie case of anticipation based on inherency, the burden shifts to the appellant to prove that the subject matter shown to be in the prior art does not possess the characteristics of the claimed invention. See In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985); In re King, 801 F.2d 1324, 1327, 231 USPQ 136, 138 (Fed. Cir. 1986). Hence, the appellant's burden before the PTO is to prove that Dewitz's vortex stabilizer does not perform the function defined by the solids deflector

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in claim 19. The appellant has not come forward with any evidence to satisfy that burden. Compare In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977); In re Ludtke, 441 F.2d 660, 664, 169 USPQ 563, 566-67 (CCPA 1971). The appellant's mere argument in the brief to the effect that

Dewitz's vortex stabilizer does not perform the function defined

by the solids deflector in claim 19 is not evidence. See In re Pearson, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974) (attorney's arguments in a brief cannot take the place of evidence).

For the reasons set forth above, the decision of the examiner to reject claim 19 under 35 U.S.C. § 102(b) is affirmed.

The appellant has grouped claims 19 through 24 as

standing or falling together.³ Therefore, in accordance with
37 CFR

§ 1.192(c)(7), claims 20 through 24 fall with claim 19. Thus,
it follows that the decision of the examiner to reject claims
20 through 24 under 35 U.S.C. § 102(b) is also affirmed.

Rejection (II)

We will not sustain the rejections of claims 25 through
29 under 35 U.S.C. § 102(b) as being anticipated by Evans, by
Suzuki or by Kalen.

In claim 25, which is also written in Jepson format, the
appellant's "improvement" comprises:

a block disposed adjacent the inlet opening for
defining an inlet passage for directing the mixture
in [sic] into the vortex chamber in a tangential
direction thereto.⁴

The examiner determined (answer, p. 5) that "the inlet
duct 15 of Evans is located adjacent the wall section 16 which

³ See page 3 of the appellant's brief.

⁴ The word "in" should be canceled upon return of the application to the
jurisdiction of the examiner.

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is in the form of a block" to direct flow into chamber 10 in a tangential direction. The examiner also determined that Suzuki discloses "a block shape to inlet duct" 23 in Figure 5. The examiner describes Figures 1 and 2 of Kalen as disclosing a tangential gas inlet and a wall 14 which forms a block located adjacent the inlet.

The appellant's specification (p. 7) describes a "solid block 33 having ends 33a and 33b (FIG. 1); sides 33c and 33d; a top 33e; and a bottom 33f" positioned just below inlet 32 and defining, with walls 12 and 20, a passage having a rectangular cross-section registering with the inlet 32. Thus, consistent with the appellant's specification and the ordinary meaning of the word, we construe the word "block" to mean "a solid piece, as of wood, with one or more flat sides" (see Webster's II New

Riverside University Dictionary 182 (1984)). As so construed, we agree with the appellant's argument (brief, p. 5) that the patents to Evans, Suzuki and Kalen do not teach a "block"

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disposed adjacent an inlet opening for defining an inlet passage.

Since every feature of claim 25 is not disclosed by Evans, Suzuki or Kalen, the claim is not anticipated by any of the applied references. Claims 26 through 29 depend from claim 25 and include all the limitations of that claim. Thus, the § 102(b) rejections of claims 25 through 29 based on Evans, Suzuki and Kalen will not be sustained.

SUMMARY

The decision of the examiner to reject claims 19 through 24 under 35 U.S.C. § 102(b) as being anticipated by Dewitz is affirmed. The decision of the examiner to reject claims 25 through 29 under 35 U.S.C. § 102(b) as being anticipated by Evans or Suzuki or Kalen is reversed.

The decision of the examiner is affirmed-in-part.

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No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

AFFIRMED-IN-PART

NEAL E. ABRAMS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
LAWRENCE J. STAAB)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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